Do Bears Shed in the Woods?

How to Collect Bear Hair for Genetic Analysis

Genetic material (DNA) can be extracted from bear hair follicles and analyzed to get a variety of information, including: species, gender, individual identity, as well genetic relatedness/diversity within and between populations. This information can increase knowledge on abundance, distribution, movement patterns, and evolutionary history of black and brown bear populations in Glacier Bay National Park.

How to find bear hair

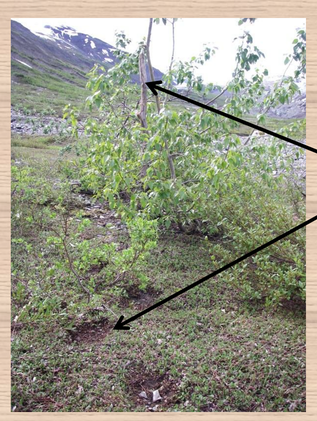
The best place to find bear hair is **on rub trees or logs** where multiple bears repeatedly rub and chew. These trees and logs usually appear mangled, clawed, and debarked.

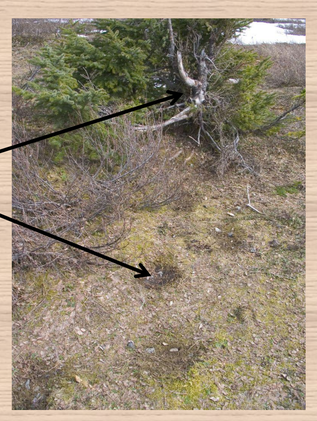






A good way to find rub trees or logs is by following **bear trails**. Solid bear/game trail often turn into a "mark trail" where individual bear footprints lead up to a rub tree or log.



You can also find bear hair **opportunistically** on vegetation along bear/game trails and in bear beds.



How to collect bear hair

Multiple bears rub on the same trees, so it is very important to **try to collect only the hair from one bear in each sample envelope**. To ensure discrete samples:

- Make sure each sample is a **single clump of hair from only one part of the wood**. If there is a lot of hair on the tree, collect several samples, each in its own envelope.
- **Never mix hair from multiple parts of the tree**, even if they are the same color.
- Each sample must have a **minimum of 5 hairs** to be collected.
- You can **use your fingers** to collect the hair and place in the sampling envelope.

Record Information on Sample Envelope:

Date: date collected	**Location:** as specific as possible. Ex) SE Queen Inlet
Initials: person collecting hair	**Lat/long or Wpt:** A GPS point, lat/long, or a dot on a map.
Sample #: Try to give each sample a unique identifier name or number. Multiple samples collected from 1 tree should be labeled a, b, c. Ex) Queen Rub 1a, 1b, and 1c.	**Coat Color:** best description of the hair color: black, brown, cinnamon, blond, or grey/white.
Source: rub tree, log, bear bed, or vegetation along trail?	**Quality: High –** big clump of course hairs (guard hair), **Moderate –** clump of fuzzy hair (underfur), or **Low –** individual hairs (no less than 5)

How to store hair samples

Heat and moisture over time will degrade DNA so samples and **envelopes should be kept as dry as possible and not exposed to high heat**. To best preserve samples:

- If hair was wet during collection, try to dry sample envelopes in a warm open place.
- If hair was dry when collected, simply keep in a ziplock bag while in transit.
- If both wet and dry samples are collected in one trip, keep them in different ziplocks so the dry samples remain dry.
- Please turn in samples as soon as you are out of the field so they can be adequately cared for.